

e-mail: liliana.pop@staff.utcluj.ro





#### **Title**

# PROCEDE DE OBTINERE A UNOR AMBALAJE ALIMENTARE INTELIGENTE PROCESS FOR OBTAINING NANOCOMPOSITE FOOD PACKAGES

#### Inventor/s - Contact

PETER ANCA, BAIA MARE, RO - Anca.PETER@cb.utcluj.ro; NICULA CAMELIA, BAIA MARE, RO - Camelia.NICULA@cb.utcluj.ro
MIHALY COZMUTA ANCA, COMUNA RECEA, RO - Mihaela.MIHALY@cb.utcluj.ro; MIHALY COZMUTA LEONARD, COMUNA RECEA,
RO - Leonard.MIHALY@cb.utcluj.ro; DANCIU VIRGINIA, CLUJ-NAPOCA, RO; BAIA GHEORGHE LUCIAN, CLUJ-NAPOCA, RO;
KOVACS GABOR, PECICA, RO; CIRIC ALEXANDRU, COMUNA CHIAJNA, RO; BEGEA MIHAELA, BUCURE\$TI, RO; CRACIUN LILIANA,
DEJ, RO; CRACIUN GRIGORE, DEJ, RO; DUTUC GHEORGHE, DEJ, RO; FALUP ANCA, DEJ, RO; ZIEMKOWSKA WANDA, LEGIONOWO, PL;
JASTRZEBSKA AGNIESZKA, NADARZYN, PL; KURTYCZ PATRYCJA, BIALYSTOK, PL; KARWOWSKA EWA, BLONIE, PL;
MIASKIEWICZ-PESKA EWA, WARSAW, PL; ZALESKA RADZIWILL MONIKA, WARSAW, PL; OLSZYNA ANDRZEJ, WARSAW, PL;
KUNICKI ANTONI, PRUSZKOW, PL; SITARZ KAROLINA, KLWOW, PL; ROSLON MAGDALENA, JASIENICA, PL

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## **Short presentation**

This invention relates to processes for obtaining intelligent food packaging based on polypropylene and paper respectively, which ensure the food preservation extend its shelf life. The technical problem that the claimed invention aims to solve is to carry out a process of obtaining active packaging that ensures the preservation of as many types of food as possible, for a longer duration, both at the ambient temperature of 10-30° C and at refrigeration (0-10° C), as well as ensuring the maintenance of the food characteristics during the conservation period. The used raw materials were paper and polypropylene, respectively modified with nano-structured materials, such as:

- 1. Mixed composite titanium dioxide silicon dioxide modified with silver nanoparticles
- 2. Titanium dioxide modified with gold nanoparticles
- 3. Titanium dioxide modified with nitrogen and silver nanoparticles.

The process of obtaining smart food packaging has the following advantages: it prolongs the shelf life of food products; ensures the preservation of the properties of food throughout its storage in smart packaging; stimulates the growth of lactic acid bacteria in dairy products packaged in smart packaging

## Applicability

The field of use of the invention is very wide, they can be used both at the individual level in the household, and especially on an industrial scale, in all operations aimed at food products: production, storage, transport, sale.

#### Images



